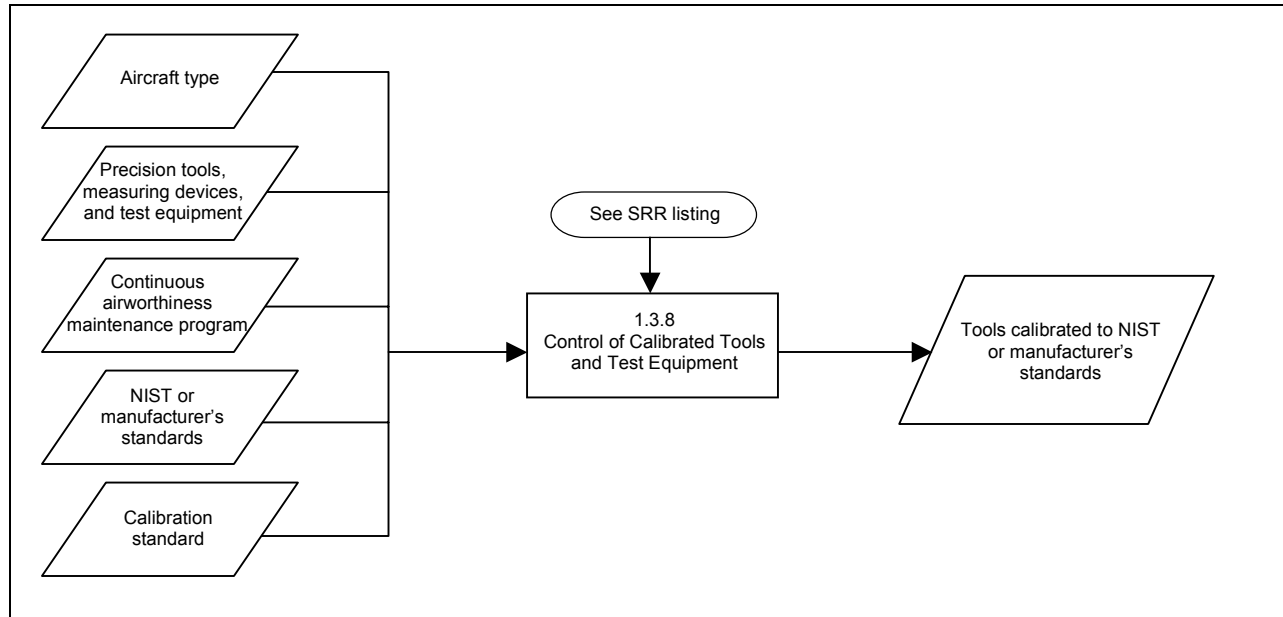


Safety Attribute Inspection (SAI) Job Aid



ELEMENT SUMMARY INFORMATION

Element: 1.3.8 Control of Calibrated Tools and Test Equipment

Purpose of this Element (Air Carrier's responsibility):

To ensure the precision tools, measuring devices, and test equipment are calibrated in accordance with its policies and procedures.

Objective (FAA responsibility):

To determine if the Air Carrier follows its policies, procedures, and controls for the Calibrated Tools and Test Equipment program.

Inputs:

- Aircraft Type
- Precision Tools, Measuring Devices, and Test Equipment
- Continuous Airworthiness Maintenance Program (CAMP)
- National Institute of Standards and Technology (NIST) or Manufacturer's Standards
- Calibration Standard

Outputs:

- Tools calibrated to NIST or manufacturer's standards.

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Performance Measures:

- Tools being used are within the calibration time limitations.
- Calibration standards meet and are traceable to NIST or manufacturer's standards.
- Calibration level of accuracy and date of expiration are identified for all precision tools, measuring devices, and test equipment (including personally owned tools).

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SRR:

- 121.369 (b) Manual Requirements

Other CFRs and/or FAA Guidance:

- FAA Order 8300.10, Volume 2, Chapter 63 “Evaluate CFR Part 121/135.411(a)(2) Company Manual/ Revision”
- FAA Order 8300.10, Volume 2, Chapter 64 “Evaluate Continuous Airworthiness Maintenance Program/ Revision”
- FAA Order 8300.10, Volume 2, Chapter 74 “Evaluate CFR Parts 121 and 135...”
- FAA Order 8300.10, Volume 2, Chapter 221 “Conduct Evaluation of Operator/Applicant’s Maintenance Facility”
- FAA Order 8300.10, Volume 2, Chapter 236 “Evaluate Avionics Test Equipment”
- FAA Order 8300.10, Volume 3, Chapter 2 “Conduct Spot Inspection of Operator’s Aircraft”
- FAA Order 8300.10, Volume 3, Chapter 36 “Monitor Continuous Airworthiness Maintenance Program/ Revision”
- FAA Order 8300.10, Volume 3, Chapter 131 “Inspect Operator’s Maintenance Facility”
- FAA Order 8300.10, Volume 3, Chapter 144 “Inspect Avionics Test Equipment”
- Refer to appropriate Advisory Circulars

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SRR SPECIFIC INFORMATION

SRR	Intent	Inspectors
121.369 (b)	To ensure the correct calibration of precision tools, measuring devices, and test equipment that will be used to accomplish the air carrier's maintenance and inspection programs.	<i>Certification: Airworthiness</i> <i>Surveillance: Airworthiness</i>

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 1 - RESPONSIBILITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person who is accountable for the quality of the Control of Calibrated Tools and Test Equipment process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who is responsible for the quality of the Control of Calibrated Tools and Test Equipment process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Control of Calibrated Tools and Test Equipment process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who is answerable for the quality of the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the responsibility of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a. Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has responsibility for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the person know who has authority to establish and modify the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 2 – AUTHORITY ATTRIBUTE

Objective: To determine if there is a clearly identifiable, qualified, and knowledgeable person with the authority to establish and modify the Control of Calibrated Tools and Test Equipment process.

To meet this objective, the inspector will accomplish the following tasks:

1. Identify the person who has the authority to establish or modify the Control of Calibrated Tools and Test Equipment process.
2. Review the description in the Manual that delineates the duties and responsibilities of the person.
3. Evaluate the person's qualifications and work experience (or resume', if appropriate).
4. Review the appropriate organizational chart.
5. Discuss the Control of Calibrated Tools and Test Equipment process with the person.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Is there a clearly identifiable person who has authority to establish and modify the air carrier's policies for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If yes, provide the name: <input type="checkbox"/> NO If no, explain:
2. Does the person understand the procedures associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Does the person understand the controls associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Does the person understand the interfaces associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the person understand the process measurements associated with the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. Is the authority of this position clearly documented in the air carrier's Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7. Are the qualification standards for this position clearly documented?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
7a. Are the qualification standards for this position appropriate for the duties that are assigned?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the person meet the qualification standards?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
9. Does the person acknowledge that he/she has authority for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
10. Does the individual know who has the responsibility for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
11. Are the procedures for delegation of authority clearly documented for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 3 – PROCEDURES ATTRIBUTE

Objective: To determine if the air carrier has documented procedures for accomplishing the Control of Calibrated Tools and Test Equipment process.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Control of Calibrated Tools and Test Equipment process to ensure that they contain who, what, where, when, and how.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI.
3. Discuss the Control of Calibrated Tools and Test Equipment process with appropriate personnel to gain an understanding of the procedures.
4. Observe the Control of Calibrated Tools and Test Equipment process to gain an understanding of the procedures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Do written procedures exist to achieve the desired result of the Control of Calibrated Tools and Test Equipment process:

1.1 Do written procedures use a list to identify precision tools, measuring devices, and test equipment that must be calibrated? [SRR 121.369 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.2 Do written procedures identify and specify the calibration standard for each precision tool, measuring device, and test equipment, including the calibration interval? [SRR 121.369 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.3 Do written procedures require that a decal be applied to any device requiring periodic calibration which informs the user of its calibration status) [SRR 121.369(b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.4 Do written procedures require that a decal stating "Calibrate or test prior to each use" is applied to any device requiring calibration but not on a schedule of calibration (e.g. micrometer) [SRR 121.369(b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.5 Do written procedures require the use of accurate "GO-NO-GO" devices when its use is specified by the manufacturers? [SRR 121.369 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.6 Do written procedures include calibration of mechanics personal use tools? [SRR 121.369 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

1.7 Do written procedures provide instructions for the proper storage and protection of the calibration standards and precision tools, measuring devices, and test equipment? [SRR 121.369 (b)]

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 3 – PROCEDURES ATTRIBUTE

1.8 Do written procedures identify a method for preventing the use of precision tools, measuring devices, test equipment, and calibration standards that are out of calibration? [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
2. Do the procedures identify: who, what, where, when and how?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
3. Are the procedures in compliance with the CFR(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Do the procedures conform to other written guidance (E.g., Operations Specifications, FAA Orders, Airworthiness Directives, Advisory Circulars, Handbook Bulletins, Directives, and Manufacturer's Recommendations)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Does the air carrier have the resources to support the written procedures for the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
6. If alternate procedures exist for use during irregular conditions, do they achieve the same desired results as the primary procedures so that an equivalent level of safety is maintained? (E.g., a manual system used as a result of equipment failure).	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A, No alternate procedures exist for this element
7. Are the procedures published in different manuals relating to the Control of Calibrated Tools and Test Equipment process consistent?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
8. Does the air carrier have a documented method for assessing the impacts of procedural changes to the Control of Calibrated Tools and Test Equipment process?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO

Safety Attribute Inspection (SAI) Job Aid

1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 4 – CONTROL ATTRIBUTE

Objective: To determine if checks and restraints are designed into the Control of Calibrated Tools and Test Equipment process to ensure a desired result is achieved.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Control of Calibrated Tools and Test Equipment process.
2. Review the FAA Guidance and Specific Regulatory Requirements (SRR) included in the supplemental information section of this SAI
3. Discuss the Control of Calibrated Tools and Test Equipment process with appropriate personnel to gain an understanding of the controls.
4. Observe the Control of Calibrated Tools and Test Equipment process to gain an understanding of the controls.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following checks and restraints built into the Control of Calibrated Tools and Test Equipment process:

1.1 Does the Air Carrier have and maintain a list of precision tools, measuring devices, test equipment and the calibration standards that require calibration, the serial number or other means of identification. [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
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1.2 Does the Air Carrier have a method for identifying and calibrating personal equipment (that requires calibration). [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
--	---

1.3 Does the Air Carrier require accuracy assessments for all “GO-NO-GO” devices prior to use? [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
--	---

1.4 Does the Air Carrier prohibit the use of un-calibrated personal equipment? [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
--	---

1.5 Does the Air Carrier have a method to verify tools calibration prior to issuance? [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
---	---

1.6 Does the Air Carrier’s manual contain a method for tracing the calibration standards back to NIST or the manufacturer’s standards? [SRR 121.369 (b)]	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
--	---

- 1.7 Does the air carrier provide decals or placards stating:

1.7.1 When the equipment was calibrated or the calibration due date;	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A
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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 4 – CONTROL ATTRIBUTE

<p><i>1.7.2 Calibrate or test prior to each use”?</i></p>	<p><input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> NO <input type="checkbox"/> N/A</p>
<p>2. Do the checks and restraints ensure the desired result is achieved for the Control of Calibrated Tools and Test Equipment process?</p>	<p><input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO</p>
<p>3. Does the air carrier have a documented method for assessing the impacts of any changes made to checks and restraints in the Control of Calibrated Tools and Test Equipment process?</p>	<p><input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO</p>
<p>4. Does the air carrier have the resources to support the checks and restraints for the Control of Calibrated Tools and Test Equipment process?</p>	<p><input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO</p>

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

Objective: To determine if the air carrier measures and assesses the Control of Calibrated Tools and Test Equipment process, to identify and correct problems or potential problems.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Control of Calibrated Tools and Test Equipment process.
2. Discuss the Control of Calibrated Tools and Test Equipment process with appropriate personnel to gain an understanding of the process measures.
3. Observe the Control of Calibrated Tools and Test Equipment process to gain an understanding of the process measures.

To meet this objective, the inspector will determine and record answers to the following questions:

1. <Deleted>

2. Does the air carrier's Control of Calibrated Tools and Test Equipment process include the following process measurements?

2.1 The air carrier audits precision tools, measuring devices, test equipment, and the calibration standards to ensure that they are calibrated as required.

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

2.2 The air carrier performs a minimum of an annual audit of the entire calibration program/system.

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

2.3 The air carrier performs random audits of personally owned precision tools for verification of compliance with calibration program.

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

2.4 The air carrier performs an audit of maintenance providers' calibrated precision tools, measuring devices, and test equipment and calibration standards to ensure that they meet or exceed the air carrier's program requirements.

☐ YES If no or N/A, explain:
☐ NO
☐ N/A

3. Does the air carrier document their process measurement methods and results?

☐ YES If no, explain:
☐ NO

4. Are the air carrier's process measurement methods effective?

☐ YES If no, explain:
☐ NO

5. Does the air carrier use their process measurement results to improve their programs?

☐ YES If no, explain:
☐ NO

6. Are the process measurement results accessible to the FAA?

☐ YES If no, explain:
☐ NO

7. Does the organization that conducts the process measurement have direct access to the person with responsibility for the Control of Calibrated Tools and Test Equipment process?

☐ YES If no, explain:
☐ NO

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 5 - PROCESS MEASUREMENT ATTRIBUTE

8. Does the air carrier have the resources to support the process measurement for the Control of Calibrated Tools and Test Equipment process?

☐ YES If no, explain:
☐ NO

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 6 – INTERFACES ATTRIBUTE

Objective: To determine if the air carrier identifies and manages the interactions between the Control of Calibrated Tools and Test Equipment process and the other element processes within the air carrier organization.

To meet this objective, the inspector will accomplish the following tasks:

1. Review the documented instructions and information related to the Control of Calibrated Tools and Test Equipment process.
2. Discuss the Control of Calibrated Tools and Test Equipment process with appropriate personnel to gain an understanding of the interfaces.
3. Observe the Control of Calibrated Tools and Test Equipment process to gain an understanding of the interfaces.

To meet this objective, the inspector will determine and record answers to the following questions:

1. Are the following interfaces identified for the Control of Calibrated Tools and Test Equipment process:

1.1 Appropriate Operational Equipment (Element 1.1.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.2 Maintenance Program (Element 1.3.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.3 Inspection Program (Element 1.3.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.4 Parts/Material Control/SUP (Element 1.3.10)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.5 Maintenance Training Program (Element 4.2.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.6 Other programs approved by Operation Specification	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.7 Continuing Analysis and Surveillance (CAS) Program (Element 1.3.11)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.8 (Manual) Currency (Element 2.1.1)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A

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1.3.8 Control of Calibrated Tools and Test Equipment

SECTION 6 – INTERFACES ATTRIBUTE

1.9 Content Consistency Across Manuals (Element 2.1.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.10 Content Consistency Across Manuals (Element 2.1.2)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
1.11 (Manual) Availability (Element 2.1.4)	<input type="checkbox"/> YES If no or N/A, explain: <input type="checkbox"/> No <input type="checkbox"/> N/A
2. List any additional interfaces identified:	
3. Are there written procedures for the use of air carrier personnel in the application of these interfaces?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
4. Are there controls to ensure that interfaces occur?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO
5. Are the interfaces between the Control of Calibrated Tools and Test Equipment process and other processes treated consistently in the Manual(s)?	<input type="checkbox"/> YES If no, explain: <input type="checkbox"/> NO